

## ABSTRACT

A method for preparing a medical liquid from a liquid, such as water, and two concentrated solutions comprises the following steps:

- circulating the liquid in a conduit (15), at a flowrate  $Q_0$ ;

- injecting into the conduit (15), at a flowrate  $Q_1$ , a first concentrated solution containing a first ionic substance A and a second ionic substance B, the ionic substances A and B having, respectively, in the first concentrated solution, a concentration  $[A_{sol}]$  and a first concentration  $[B_{1sol}]$ ;

- injecting into the conduit (15), at a flowrate  $Q_2$ , a second concentrated solution containing the first ionic substance A and the second ionic substance B, the first ionic substance A having, in the second concentrated solution, the same concentration  $[A_{sol}]$  as in the first concentrated solution, and the second ionic substance B having, in the second concentrated solution, a second concentration  $[B_{2sol}]$  different than the first concentration  $[B_{1sol}]$  in the first concentrated solution;

- regulating the injection flowrate  $Q_1$  and the injection flowrate  $Q_2$  of the first and second concentrated solutions in such a way that at any given time the diluted solution resulting from the mixing of the liquid and the concentrated solutions has a desired concentration  $[A_{des}]$  of first substance A and a desired concentration  $[B_{des}]$  of second substance B.

00669712-100901

(12) DEMANDE INTERNATIONALE PUBLIÉE EN VERTU DU TRAITÉ DE COOPÉRATION  
EN MATIÈRE DE BREVETS (PCT)

(19) Organisation Mondiale de la Propriété  
Intellectuelle  
Bureau international



(43) Date de la publication internationale  
10 mai 2001 (10.05.2001)

PCT

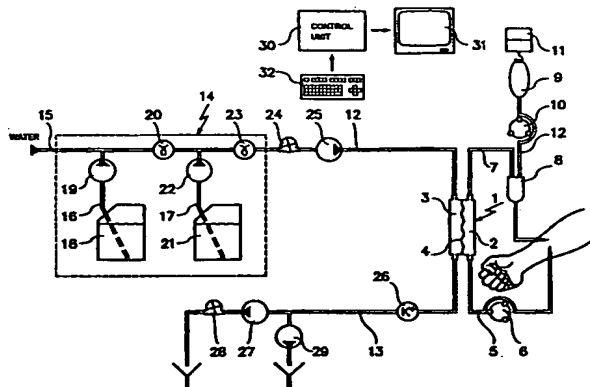
(10) Numéro de publication internationale  
WO 01/32237 A1

- (51) Classification internationale des brevets<sup>7</sup>: A61M 1/16, B01F 3/08 (71) Déposant (*pour tous les États désignés sauf US*): HOSPAL AG [CH/CH]; Dornacherstrasse 8, CH-4008 Basel (CH).
- (21) Numéro de la demande internationale: PCT/IB00/01588 (72) Inventeurs; et
- (22) Date de dépôt international: 2 novembre 2000 (02.11.2000) (75) Inventeurs/Déposants (*pour US seulement*): BOSETTO, Antonio [IT/IT]; Via Ippolito Nievo 18/A, I-41036 Mirandola (IT). PAOLINI, Francesco [IT/IT]; Strada Forghieri, 229, Ganaceto, I-41010 Modena (IT).
- (25) Langue de dépôt: français (74) Mandataire: LEJEUNE, Daniel; Hosal Service Brevets, 61, avenue Tony Garnier, F-69007 Lyon (FR).
- (26) Langue de publication: français (81) États désignés (*national*): AU, CA, JP, US.
- (30) Données relatives à la priorité: TO99A000948 2 novembre 1999 (02.11.1999) IT

[Suite sur la page suivante]

(54) Title: METHOD AND DEVICE FOR PREPARING A MEDICAL FLUID

(54) Titre: PROCEDE ET DISPOSITIF DE PREPARATION D'UN LIQUIDE MEDICAL



(57) Abstract: The invention concerns a method for preparing a medical fluid from a liquid such as water and two concentrated solutions comprising the following steps: causing the liquid to circulate in a piping system (15) at a flow rate  $Q_0$ ; injecting into the piping system (15), at a flow rate  $Q_1$ , a first concentrated solution containing a first ionic substance A and a second ionic substance B, the ionic substances A and B having respectively, in the first concentrated solution, a concentration [Asol] and a first concentration [B1sol]; injecting into the piping system (15), at a flow rate  $Q_2$ , a second concentrated solution containing the first ionic substance A and the second ionic substance B; the first ionic substance A having, in the second concentrated solution, the same concentration [Asol] as in the first concentrated solution, and the second ionic substance B having, in the second concentrated solution, a second concentration [B2sol] different from the first concentration [B1sol] in the first concentrated solution; adjusting the flow rate of injection  $Q_1$  and the flow rate of injection  $Q_2$  of the first and second concentrated solutions such that, at any time, the diluted solution resulting from the liquid mixture and the concentrated solutions has a desired concentration [Ades] of the first substance A and a desired concentration [Bdes] of the second substance B.

(57) Abrégé: Un procédé de préparation d'un liquide médical à partir d'un liquide, tel que de l'eau, et de deux solutions concentrées comprend les étapes de: mettre le liquide en circulation dans une canalisation (15), à un débit  $Q_0$ ; injecter dans la canalisation (15), à un débit  $Q_1$ , une première solution concentrée contenant une première substance ionique A et une deuxième substance ionique B, les substances ioniques

[Suite sur la page suivante]

00669360 "27269360"

WO 01/32237 A1